directing the input ultrasonic signal into and along a propagation path in the sample, wherein the sample causes finite, non-linear amplitude distortion of the input ultrasonic signal along the propagation path and thereby produces a distorted ultrasonic signal comprised of a first order component signal and higher order harmonic component signals at a first and higher order harmonic frequencies respectively, and further wherein the sample also reflects the distorted ultrasonic signal including the first order and the higher order harmonic component[s ultrasonic] signals;

receiving the higher order harmonic components of the reflected distorted ultrasonic signal produced by the distortion of the [initial] input ultrasonic signal along the propagation path and caused by said sample;

forming an image principally from one of said received higher order harmonic component[s of the reflected distorted ultrasonic signal] signals; and

displaying said formed image.

13. (Three Times Amended) A system for imaging a biological sample, comprising:

means for generating an [initial] input ultrasonic signal, said input signal being at a fundamental frequency and having negligible energy in the second harmonic bandwidth of the fundamental frequency;

means for directing the [initial] input ultrasonic signal into and along a propagation path in the sample, wherein the sample causes finite, non-linear amplitude distortion of the [fundamental] input ultrasonic signal along the propagation path, and said distortion thereby produces a distorted ultrasonic signal comprised of a first order component signal and higher order harmonic component[s] signals at a first and higher order harmonic frequencies respectively, and wherein the sample also reflects the distorted ultrasonic signal including the first order and the higher order harmonic component[s thereof] signals;

means for receiving the higher order harmonic components of the reflected distorted ultrasonic signal produced by the distortion of the initial ultrasonic signal along the propagation path and caused by said sample;

means for forming an image principally from one of said received higher order harmonic component signals [of the reflected distorted ultrasonic signal]; and

means for displaying said formed image.

REMARKS

This opportunity is being taken to amend independent Claims 2 and 13 to distinguish even further over the facts alleged in the Acuson Declarations submitted in support of Acuson's Petition to institute a public use proceeding.